# Amendments to and Listing of the Claims:

Please amend claims 1, 8-10, 12, 14, 15, 22-26, 28, 32 and 35, without prejudice, please cancel claims 4-7, 18-21, 34 and 38, without prejudice, as set forth in the following listing of the claims, which replaces all prior listings of the claims.

1. (Currently Amended) A process for the production of  $6\alpha$ -fluorpregnanes, of general formula (I):

$$CH_2R_1$$
 $CD$ 
 $CD$ 
 $C$ 
 $D$ 
 $C$ 
 $D$ 

where

the dotted line between positions 1 and 2 represents a single or double bond;

 $R_1$  is OH, OCOR<sub>2</sub>, X, SO<sub>3</sub>R<sub>3</sub> or an  $(R_7)(R_8)(R_9)$ SiO- group, where X is halogen,  $R_2$  and  $R_3$  are  $C_{1-6}$  alkyl or phenyl optionally substituted by  $C_{1-4}$  alkyl, and  $R_7$ ,  $R_8$  and  $R_9$ , equal or different, are  $C_{1-6}$  alkyl or phenyl optionally substituted by  $C_{1-4}$  alkyl;

the C ring of the steroid is:

where

P is a protector group of the hydroxyl group; and the D ring of the steroid is:

$$R_4$$
  $R_6$ 

 $R_4$  is H or  $CH_3$  ( $\alpha$  or  $\beta$  configuration);

R<sub>5</sub> and R<sub>6</sub>, equal or different, are C<sub>1-4</sub> alkyl; and

each P', independently, is H, a protector group of the hydroxyl or an  $(R_7)(R_8)(R_9)$ Sigroup, where  $R_7$ ,  $R_8$  and  $R_9$  have the previously mentioned meaning;

<u>the process</u> comprising <u>stereoselectively</u> reacting a 3-(trisubstituted)silyloxy-pregna-3,5-diene of <u>general</u> formula (IV):

$$R_8$$
 $R_9$ 
 $R_9$ 
 $CH_2R_1$ 
 $CO$ 
 $C$ 
 $D$ 
 $C$ 
 $D$ 

where

the dotted line between positions 1 and 2,  $R_1$ ,  $R_7$ ,  $R_8$  and  $R_9$ , and the C and D rings of the steroid, have the previously mentioned meaning,

with a fluorinating agent selected among from the group consisting of:

(i) an N-fluorosulfonimide of general formula (V):

$$R_{10} - O_2 S - NF - SO_2 - R_{11}$$

 $R_{10}$  and  $R_{11}$ , equal or different, are  $C_{1.4}$  alkyl with one or more hydrogen atoms optionally substituted by halogen, or phenyl optionally substituted by  $C_{1.4}$  alkyl; and

(ii) an N-fluorosulfonimide of general formula (VI):

where

R is a C<sub>1-6</sub> alkyl radical; and

(iii) an N-fluorosulfonamide of general formula (VII):

$$R_{12}$$
— $SO_2$ - $N$ 
 $R_{13}$ 
 $(VII)$ 

where

 $R_{12}$  is phenyl optionally substituted by  $C_{1-4}$  alkyl; and

R<sub>13</sub> is H, C<sub>1-6</sub> alkyl or phenyl optionally substituted by C<sub>1-4</sub> alkyl and a base.

- 2. (Original) A process according to claim 1, for the production of a compound of formula (I) wherein the dotted line between positions 1 and 2 represents a double bond.
- 3. (Original) A process according to claim 1, for the production of a compound of formula (I) wherein  $R_1$  is hydroxyl, acetate, pivalate, propionate, mesylate or chlorine.

### 4-7. (Cancelled)

- 8. (Currently Amended) A process according to claim 1, for the production of a compound of formula (I) wherein the dotted line between positions 1 and 2 represents a double bond[[,]]; R<sub>1</sub> is hydroxyl, acetate, pivalate, propionate, mesylate or chlorine[[,]]; the C ring has a 9β,11β-epoxy group in the C ring[[,]]; R<sub>4</sub> is H, αCH<sub>3</sub> or βCH<sub>3</sub>[[,]]; and position 17 of the compound has an αOH group at position 17.
- 9. (Currently Amended) A process according to claim 1, for the production of a compound of formula (I) wherein the dotted line between positions 1 and 2 represents a double bond[[,]];  $R_1$  is hydroxyl, acetate, pivalate, propionate, mesylate or chlorine[[,]]; has there is a double bond between positions 9 and 11[[,]] of the compound;  $R_4$  is H,  $\alpha CH_3$  or  $\beta CH_3[[,]]$ ; and position 17 of the compound has an  $\alpha OH$  group at position 17.
- 10. (Currently Amended) A process according to claim 1, wherein the reaction between the compound of formula (IV) and the fluorinating agent selected among from the group consisting of the compounds of formula (V), (VI) and (VII) is carried out in an organic solvent selected among from the group consisting of a halogenated organic solvent, an aromatic hydrocarbon, an ether and acetonitrile.
- 11. (Original) A process according to claim 10, wherein said halogenated organic solvent is methylene chloride, 1,2-dichloroethane or chloroform.
- 12. (Currently Amended) A process according to claim 1, wherein the reaction between the compound of formula (IV) and the fluorinating agent selected among from the group consisting of the compounds of formula (V), (VI) and (VII) is carried out in the presence of a nitrogenated organic base.
  - 13. (Original) A process according to claim 12, wherein the nitrogenated organic base is

triazole, aminotriazole, imidazole or pyridine.

- 14. (Currently Amended) A process according to claim 1, wherein the reaction between the compound of formula (IV) and the fluorinating agent selected among from the group consisting of the compounds of formula (V), (VI) and (VII) is carried out at a temperature of comprised between -40°C and +20°C, preferably between -10°C and 0°C.
  - 15. (Withdrawn, Currently Amended) A compound of general formula (IV):

$$\begin{array}{c} CH_2R_1 \\ CO \\ \hline \\ R_8 - Si \\ R_9 \end{array}$$

where

the dotted line between positions 1 and 2 represents a single or double bond;

 $R_1$  is OH, OCOR<sub>2</sub>, X, SO<sub>3</sub>R<sub>3</sub> or an  $(R_7)(R_8)(R_9)$ SiO- group, where X is halogen,  $R_2$  and  $R_3$  are  $C_{1-6}$  alkyl or phenyl optionally substituted by  $C_{1-4}$  alkyl, and  $R_7$ ,  $R_8$  and  $R_9$ , equal or different, are  $C_{1-6}$  alkyl or phenyl optionally substituted by  $C_{1-4}$  alkyl;

the C ring of the steroid is:

P is a protector group of the hydroxyl group; and the D ring of the steroid is:

$$R_4$$
  $R_6$   $R_6$ 

where

 $R_4$  is H or  $CH_3$  ( $\alpha$  or  $\beta$  configuration);

R<sub>5</sub> and R<sub>6</sub>, equal or different, are C<sub>1-4</sub> alkyl; and

each P', independently, is H, a protector group of the hydroxyl or an  $(R_7)(R_8)(R_9)$ Sigroup, where  $R_7$ ,  $R_8$  and  $R_9$  have the previously mentioned meaning.

- 16. (Withdrawn) A compound according to claim 15, wherein the dotted line between positions 1 and 2 represents a double bond.
- 17. (Withdrawn) A compound according to claim 15, wherein  $R_1$  is acetate, pivalate, propionate or mesylate.

#### 18-21. (Cancelled)

- 22. (Withdrawn, **Currently Amended**) A compound according to claim 15, wherein two groups selected from the group consisting of among  $R_7$ ,  $R_8$  and  $R_9$  are simultaneously methyl and the other one is t-butyl, or wherein  $R_7$ ,  $R_8$  and  $R_9$  are simultaneously isopropyl.
- 23. (Withdrawn, Currently Amended) A compound according to claim 15, wherein the dotted line between positions 1 and 2 represents a double bond[[,]];  $R_1$  is acetate, pivalate,

propionate or mesylate, it ; the C ring has a  $9\beta$ ,  $11\beta$ -epoxy group; in the C ring,  $R_4$  is  $\alpha CH_3$  or  $\beta CH_3$ , it ; position 17 of the compound has an  $\alpha OH$  group; at position 17, two groups selected from the group consisting of among  $R_7$ ,  $R_8$  and  $R_9$  are simultaneously methyl and the other one is t-butyl, or  $R_7$ ,  $R_8$  and  $R_9$  are simultaneously isopropyl.

- 24. (Withdrawn, **Currently Amended**) A compound according to claim 15, wherein the dotted line between positions 1 and 2 represents a double bond[[,]];  $R_1$  is acetate, pivalate, propionate or mesylate, it: the compound has a double bond between positions 9 and 11[[,]];  $R_4$  is  $\alpha CH_3$  or  $\beta CH_3$ , it: position 17 of the compound has an  $\alpha OH$  group; at position 17, two groups selected from the group consisting of among  $R_7$ ,  $R_8$  and  $R_9$  are simultaneously methyl and the other one is t-butyl, or  $R_7$ ,  $R_8$  and  $R_9$  are simultaneously isopropyl.
- 25. (Withdrawn, **Currently Amended**) A compound according to claim 15, containing comprising an (R<sub>7</sub>)(R<sub>8</sub>)(R<sub>9</sub>)SiO- group at one or both positions 17 and 21 of the compound position 16 and/or 21.
- 26. (Withdrawn, **Currently Amended**) A process for obtaining a compound of formula (IV) according to claims 15, comprising reacting a pregnane derivative of general formula (II):

$$CH_2R_1$$
 $CD$ 
 $CD$ 
 $CII)$ 

where

the dotted line between positions 1 and 2 represents a single or double bond;

 $R_1$  is OH, OCOR<sub>2</sub>, X, SO<sub>3</sub>R<sub>3</sub>, or an  $(R_7)(R_8)(R_9)$ SiO-group, where X is halogen,  $R_2$  and  $R_3$  are  $C_{1-6}$  alkyl or phenyl optionally substituted by  $C_{1-4}$  alkyl, and  $R_7$ ,  $R_8$  and  $R_9$ , equal or different, are  $C_{1-6}$  alkyl or phenyl optionally substituted by  $C_{1-4}$  alkyl;

the C ring of the steroid is:

### where

P is a protector group of the hydroxyl group; and the D ring of the steroid is:

$$R_4$$
  $R_6$   $R_6$ 

where

 $R_4$  is H or  $CH_3$  ( $\alpha$  or  $\beta$  configuration);

R<sub>5</sub> and R<sub>6</sub>, equal or different, are C<sub>1-4</sub> alkyl; and

each P', independently, is H, a protector group of the hydroxyl or an  $(R_7)(R_8)(R_9)Si$ group, where  $R_7$ ,  $R_8$  and  $R_9$  have the previously mentioned meaning;

with a (trisubstituted)silyl trifluoromethanesulfonate of general formula (III):

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$$R_{8}$$
 $R_{8}$ 
 $Si$ 
 $R_{9}$ 
 $R_{9}$ 
 $R_{1}$ 

where

R<sub>7</sub>, R<sub>8</sub> and R<sub>9</sub> have the previously mentioned meaning.

- 27. (Withdrawn) A process according to claim 26, wherein said compound of formula (III) is t-butyldimethylsilyl trifluoromethanesulfonate or triisopropylsilyl trifluoromethanesulfonate.
- 28. (Withdrawn, **Currently Amended**) A process according to claim 26, wherein the reaction between the compound of formula (II) and the compound of formula (III) is carried out in an organic solvent selected <u>from the group consisting of among</u> a halogenated organic solvent, an ether and acetonitrile.
- 29. (Withdrawn) A process according to claim 28, wherein said halogenated solvent is dichloromethane or 1,2-dichloroethane.
- 30. (Withdrawn) A process according to claim 26, wherein the reaction between the compound of formula (II) and the compound of formula (III) is carried out in the presence of a nitrogenated organic base.
- 31. (Withdrawn) A process according to claim 30, wherein said nitrogenated organic base is diisopropylethylamine, triethylamine, lutidine or collidine.
- 32. (Withdrawn, **Currently Amended**) A process according to claim 26, wherein the reaction between the compound of formula (II) and the compound of formula (III) is carried out

at a temperature comprised between of -20°C and 25°C, preferably between -10°C and 0°C.

33. (Withdrawn) A process according to claim 26, wherein the reaction between the compound of formula (II) and the compound of formula (III) is carried out at a compound (III):compound (II) molar ratio equal to or greater than 2 to obtain the disilylated derivative of the compound of formula (IV), or equal to or greater than 3 to obtain the trisilylated derivative of the compound of formula (IV).

## 34. (Cancelled)

# 35. (Currently Amended) A process for the production of 6α-fluorpregnane (I):

$$CH_2R_1$$
 $CD$ 
 $CD$ 
 $C$ 
 $D$ 
 $C$ 
 $D$ 

where

the dotted line between positions 1 and 2 represents a single or double bond;

 $R_1$  is OH, OCOR<sub>2</sub>, X, SO<sub>3</sub>R<sub>3</sub>, or an  $(R_7)(R_8)(R_9)$ SiO- group, where X is halogen,  $R_2$  and  $R_3$  are  $C_{1-6}$  alkyl or phenyl optionally substituted by  $C_{1-4}$  alkyl, and  $R_7$ ,  $R_8$  and  $R_9$ , equal or different, are  $C_{1-6}$  alkyl or phenyl optionally substituted by  $C_{1-4}$  alkyl;

the C ring of the steroid is:

P is a protector group of the hydroxyl group; and the D ring of the steroid is:

$$R_4$$
  $R_6$   $R_6$ 

where

 $R_4$  is H or  $CH_3$  ( $\alpha$  or  $\beta$  configuration);

 $R_5$  and  $R_6$ , equal or different, are  $C_{1-4}$  alkyl; and

each P', independently, is H, a protector group of the hydroxyl or an  $(R_7)(R_8)(R_9)Si$ group, where  $R_7$ ,  $R_8$  and  $R_9$  have the previously mentioned meaning;
comprising

a) reacting a pregnane derivative of general formula (II):

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$$CH_2R_1$$
 $CO$ 
 $CD$ 
 $CII)$ 

where

the dotted line between positions 1 and 2,  $R_1$  and the C and D rings have the previously mentioned meanings,

with a (trisubstituted)silyl trifluoromethanesulfonate of general formula (III):

$$R_8$$
— $S_i$ — $O$ - $SO_2$ - $CF_3$ 
 $R_9$ 
(III)

where

 $R_7$ ,  $R_8$  and  $R_9$  have the previously mentioned meanings, to obtain a compound of formula (IV):

$$R_8$$
 $R_9$ 
 $CH_2R_1$ 
 $CD$ 
 $CD$ 
 $CD$ 
 $CD$ 
 $C$ 
 $D$ 
 $C$ 
 $D$ 

the dotted line between positions 1 and 2, R<sub>1</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, and the C and D rings have the previously mentioned meanings, and

- b) reacting said compound of formula (IV) <u>stereoselectively</u> with a fluorinating agent selected <u>among from the group consisting of</u>:
  - (i) an N-fluorosulfonimide of general formula (V):

$$R_{10} - O_2S - NF - SO_2 - R_{11}$$

where  $R_{10}$  and  $R_{11}$ , equal or different, are phenyl optionally substituted by  $C_{1-4}$  alkyl;

(ii) an N-fluorosulfonimide of general formula (VI):

where

R is C<sub>1-6</sub> alkyl; and

(iii) an N-fluorosulfonamide of general formula (VII):

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$$R_{12}$$
— $SO_2$ - $N$ 
 $R_{13}$ 
 $(VII)$ 

where

 $R_{12}$  is phenyl optionally substituted by  $C_{1-4}$  alkyl; and  $R_{13}$  is H,  $C_{1-6}$  alkyl or phenyl optionally substituted by  $C_{1-4}$  alkyl and a base.

- 36. (Original) A process according to claim 35, comprising the isolation of the compound of formula (IV) formed by reaction of the compound of formula (II) with the compound of formula (III) prior to its reaction with the fluorinating agent.
- 37. (Original) A process according to claim 35, wherein the reaction of the compound of formula (IV) with the compound of formula (V), (VI) or (VII) takes place without the isolation of the compound of formula (IV) formed by reaction of the compound of formula (II) with the compound of formula (III).

### 38. (Canceled)